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MEMORANDUM

Public Hearing Closed:	April 25, 2011
Zoning and Planning Action Date:	July 11, 2011
Board of Aldermen Action Date:	July 18, 2011
90-Day Expiration Date:	July 22, 2011

DATE: May 20, 2011

TO: Alderman Marcia T. Johnson, Chairman, and
Members of the Zoning and Planning Committee

FROM: Candace Havens, Director of Planning and Development
Jennifer Molinsky, Interim Chief Planner for Long-Range Planning
Seth Zeren, Chief Zoning Code Official

RE: Working Session

- #17-11(2) TERRENCE P. MORRIS et. al., proposing amendments to Section 30-1 of the Zoning Ordinance which would institute a length-weighted mean approach for calculating grade plane by revising the current definition of grade plane; and by inserting a new definition of average grade containing a method for a length-weighted mean grade plane calculation.
- #65-11(2) TERRENCE P. MORRIS & JOSEPH PORTER proposing amendments to the Zoning Ordinance to revise the definition of "height" in Section 30-1 so as to calculate building height as the distance from grade plane to the peak of the roof; to revise clause (b) in the definition of "height, contextual" in Section 30-1 (relating to Section 30-15(s) Planned Multi-Use Business Developments) so as to calculate vertical distance using the peak of the roof; to increase the height limits in residential districts contained in Section 30-15, Density/Dimensional Controls, Tables 1 and 4; to increase the height limit contained in Section 30-15(m) for accessory structures; and to add a provision in Section 30-15(m) to allow accessory structure height limits to be waived by special permit.

CC: Mayor Setti D. Warren
Board of Alderman
Planning and Development Board
John Lojek, Commissioner, Inspectional Services Department
Marie Lawlor, Assistant City Solicitor

I. BACKGROUND AND SUMMARY

On April 25, the Zoning and Planning Committee held a public hearing on two related Petitions (#17-11 and #65-11) concerning changes to the definition and regulation of “grade plane” and “height.” This memorandum addresses a question raised at the Committee on April 25, 2011 regarding other instances of the use of “grade” or “grade plane” in the Zoning Ordinance, and also presents additional and revised draft language.

Please see previous memoranda dated April 22, 2011 and May 6, 2011 for more information on the petitions.

II. USE OF “GRADE” AND “GRADE PLANE” IN THE ORDINANCE

The Planning Department analyzed all instances of the term “grade” in the ordinance to identify potential interactions with existing regulations. The following are the Instances of “grade” in the current Zoning Ordinance that relate to the definition of “grade plane:”

§30-1 *Grade Plane*: A reference plane for a building or structure as a whole representing the average of finished ground level adjoining the building or structure at all exterior walls. In calculating said reference plane, the elevation of each point used to calculate said average shall be determined by using the lowest elevation of finished ground level within the area immediately adjoining the building or structure and either the lot line or a point six (6) feet from the building or structure, whichever is closer to the building or structure, as illustrated in the diagrams below.

§30-1 *Height*: The vertical distance between the elevations of the following: (a) the *average grade plane* and (b) the midpoint between the highest point of the ridge of the main building roof and the line formed by the intersection of the top of the main building wall plate and the main roof plane. Not included in such measurements are 1) cornices which do not extend more than five (5) feet above the roof line; 2) chimneys, vents, ventilators and enclosures for machinery of elevators which do not exceed fifteen (15) feet in height above the roof line; 3) enclosures for tanks which do not exceed twenty (20) feet in height above the roof line and do not exceed in aggregate area ten (10) per cent of the area of the roof; and 4) towers, spires, domes and ornamental features.

§30-1 *Basement*: Any story in a building in which two-thirds (2/3rds) or more of the distance between the floor and the ceiling next above it is below the *average grade plane* adjacent to the building. However, in the case of one and two-family residential uses, any story in a building in which one-half (1/2) or more of the distance between the floor and the ceiling next above it is below the average grade plane adjacent to the building.

§30-1 *Floor area, ground*: The gross floor area enclosed by the perimeter of the lower-most story of a building above the *grade plane*. (This definition is only used in regulating the size of garages §30-15(m) and home businesses §30-8(c).)

A similar but unrelated definition of “grade” also exists in Section 30-1. This definition relates to the definition of structures.

§30-1 *Grade*: In cases where the walls of the building are more than five (5) feet from the nearest street line, the mean elevation of the ground adjoining said wall; and in all other cases, the mean elevation of the nearest sidewalk.

§30-1 *Structure*: Any construction, erection, assemblage or other combination of materials at a fixed location upon the land, such as, but not limited to, a building, bridge, trestle, tower, framework, tank, tunnel, tent, stadium, platform, retaining wall or systems of walls whose above-*grade* height exceeds four (4.0) feet, tennis court or swimming pool.

Of these references to “grade” or “grade plane” in the Ordinance, there is only one that the Planning Department recommends amending in order to make it consistent with the changes under consideration in petitions 17-11 and 65-11. This is the reference to “grade plane” in the definition of “floor area, ground,” which we recommend changing to “average grade plane.” This proposed change is included in the draft text at the end of this memo.

III. PROPOSED ORDINANCE CHANGES

In response to questions and concerns raised during the working session on May 9, the Planning Department proposes the following revised language based on our research and consideration of the interrelated pieces of the Newton Zoning Ordinance. Most noticeably, we have streamlined the previous definitions for “grade plane” and “average grade plane” into a single definition. Planning Department staff felt comfortable making this change after reviewing all relevant instances of grade (above) in the Ordinance and determining that, with one additional change, a single definition of “average grade plane” would be adequate. As noted above, the additional change would revise the definition of “floor area, ground” by adding the word “average” to bring it into conformity with the proposed definition.

After the revised definition of “average grade plan” and new definition of “height,” we include new draft language for increasing the allowed height of sloped roof structures but not for flat roofed structures. This regulatory distinction would be stronger with a specific definition of “sloped roof.” After discussion with the Inspectional Services Department, the Planning Department recommends that roofs with a pitch shallower than 4:12 count as flat roofs.

Such a definition would be best located in Section 30-1, Definitions. However, a new Public Hearing would be required for this element, as it was not advertised in the current petition. Creating such a definition of “sloped roof” in Section 30-1 would mean that it applies to other instances where the term “sloping roof” is used in the Ordinance, most notably in the definition of “half story” (defined as “a story directly under a sloping roof....”). ISD has expressed support for clarification of the existing half-story rule. An alternative to defining “sloped roof” in Sec. 30-1 would be to locate this rule as part of footnotes to Section 30-15 Tables 1 and 4.

Regarding the height limits in Sec. 30-15, Table 1 (dimensional controls for residence districts and residential uses), while most height limits are currently 30 feet (and would change to 36 feet under the petition), there are three exceptions in the MR3 and MR4 districts: in MR3, multifamily dwellings and residential care facilities are currently allowed 36 feet with a special permit, and in the MR4 district (which applies only to the area of the Chestnut Hill Towers behind the Chestnut Hill Mall), residential care facilities are also allowed a height limit of 36 feet with a special permit. We recommend allowing a commensurate increase of six feet to these limits, to 42 feet, and have included draft language below to achieve these changes.

This memorandum also contains two draft-language options for regulating accessory structure height, including provisions for increasing allowed height by special permit. The Planning Department recommends the first of the two options, which increases the allowable height by four feet for structures with sloping roofs, commensurate with the proposed revised definition, and preserves a full range of reasonable architectural opportunities for accessory structures. If the Committee prefers allowing exceptions to the 22 foot by-right limit through the special permitting process, the Planning Department recommends setting a maximum height by special permit of 26 feet and identifying particular conditions and requirements to protect neighborhood character and the privacy of abutters (as shown in the second option of #12, below).

Summary of Proposed Revisions:

1. Delete existing definition of grade plane in Section 30-1 and replace it with the following:

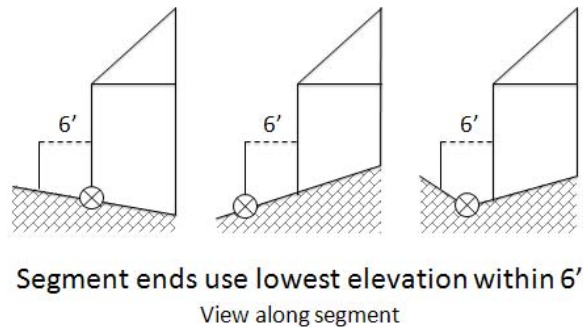
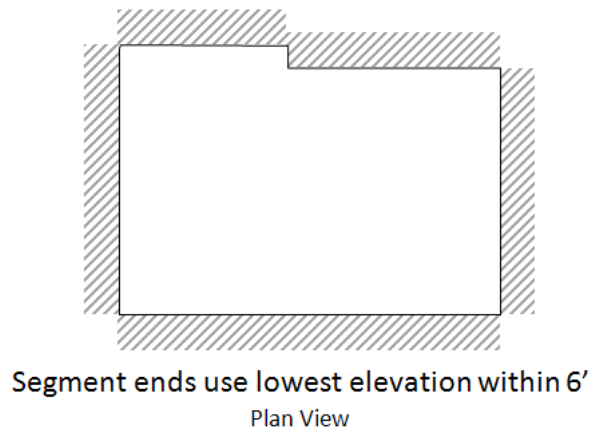
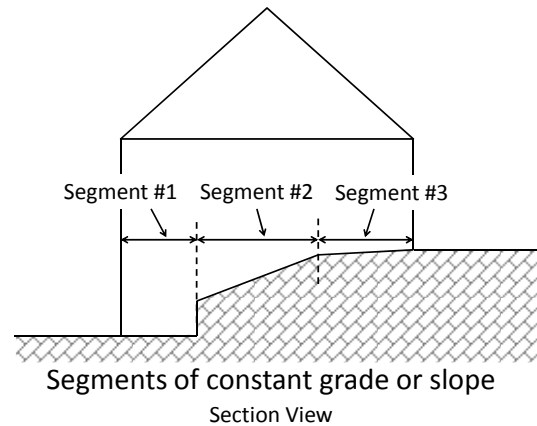
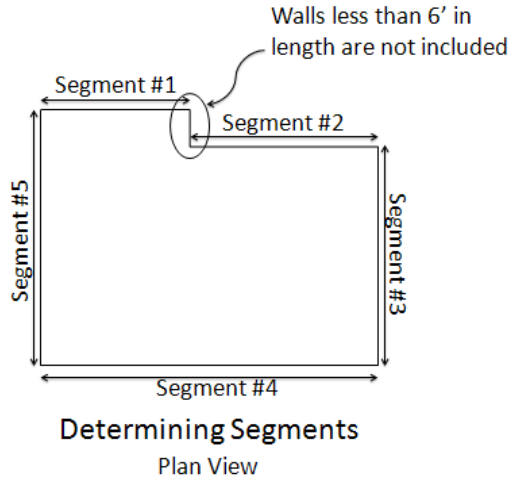
Section 30-1 Grade Plane, Average: A horizontal reference plane for a building as a whole representing the average of finished grade elevations around the perimeter of a building, as determined by the length-weighted mean formula below. All walls of length greater than six feet shall be included in segments of consistent grade or slope.

$$\frac{\sum[(e1 + e2)/2 \times L]}{P}$$

Where:

- Σ sums the weighted average grades of all segments;
- e1 and e2 are the elevations of the finished ground level at the respective ends of each segment, determined as the lowest point at each end of the segment within six feet of the foundation or the lot line, whichever is closer;
- L is the corresponding horizontal length of the segment; and
- P is total horizontal length of all segments.

2. Delete the existing images in Section 30-1 Grade Plane, Average, and replace them with the following:



3. Amend "Floor Area, Ground," so that it is consistent with the changes to the definition of "Grade Plane, Average:"

Floor area, ground: The gross floor area enclosed by the perimeter of the lower-most story of a building above the average grade plane.

4. Delete existing definition of "Height" in Section 30-1 and replace it with:

Section 30-1: Height: The vertical distance between the elevations of the following: (a) the average grade plane and (b) the peak of the roof line the highest point of the roof. Not included in such measurements are 1) cornices which do not extend more than five (5) feet above the roof line; 2) chimneys, vents, ventilators and enclosures for machinery of elevators which do not exceed fifteen (15) feet in height above the roof line; 3) enclosures for tanks which do not exceed twenty (20) feet in height above the roof line and do not exceed in aggregate area ten (10) per cent of the area of the roof; and 4) towers, spires, domes and ornamental features.

5. Amend definition of “Height, Contextual in Section 30-1:

Section 30-1: Height, Contextual: The vertical distance between the elevations of the following: (a) the Newton Base Elevation utilized by the city as implemented by the engineering division of the department of public works and (b) ~~the mid point between the highest point of the ridge of the roof and the line formed by the intersection of the wall plane and the roof plane~~ the highest point of the roof. Not included in such measurements are 1) cornices which do not extend more than five (5) feet above the roof line; 2) chimneys, vents, ventilators and enclosures for machinery of elevators which do not exceed fifteen (15) feet in height above the roof line; 3) enclosures for tanks which do not exceed twenty (20) feet in height above the roof line and do not exceed in aggregate area ten (10) per cent of the area of the roof; and 4) towers, spires, domes and other ornamental features.

6. Amend “building height” in Section 30-15, Table 1 for all Single Residence Districts and Multi-Residence Districts, changing all instances of “30” in the building height column to “36.”

7. Insert a new Footnote 6 referencing the Height column in Section 30-15 Table 1, as follows:

⁶ A building with sloped roof shall have a maximum height of 36 (thirty-six) feet. A building with a flat roof shall have a maximum height of 30 (thirty) feet.

8. Amend “building height” in Section 30-15, Table 1 for multifamily and residential care facilities In the MR3 and MR4 zones, changing all instances of “36” in the building height column to “42.”

9. Insert a new Footnote 7 referencing the Height column in Section 30-15 Table 1, as follows (note that Footnote 5 currently allows a multifamily dwellings in the MR4 zone, on lots greater than 10 acres, to apply for a special permit to allow a height of 48 feet and 4 stories, under certain conditions; this ability would remain intact under the proposed change):

⁷ A multifamily or residential care facility in the MR3 or MR4 zone with sloped roof shall have a maximum height of 42 (forty-two) feet. A building with a flat roof shall have a maximum height of 36 (thirty-six) feet.

10. Amend “building height” in Section 30-15, Table 4 for all Single Residence Districts and Multi-Residence Districts, changing all instances of “30” in the building height column to “36.”

11. Insert a new Footnote 8 referencing the Height column in Section 30-15 Table 4, as follows:

⁸ A building with sloped roof shall have a maximum height of 36 (thirty-six) feet. A building with a flat roof shall have a maximum height of 30 (thirty) feet.

- ❖ The Planning Department recommends a supplemental docket item follow this docket item which places definitions of sloped roof and flat roof in Section 30-1, Definitions. These definitions would also help ISD in interpreting the requirement under the definition of “half story” that the half story be located under a “sloping roof.” Proposed definitions would be as follows:

Roof, sloped: a roof with a pitch greater than or equal to 4:12.

Roof, flat: a roof with a pitch less than 4:12.

- ❖ Alternatively, rather than defining “sloped roof” and “flat roof” in Section 30-1 through a second docket item replace:
 - instances of “~~sloped roof~~” in the above footnotes with “a roof with a pitch greater than or equal to 4:12”
 - instances of “~~flat roof~~” in the above footnotes with “a roof with a pitch less than 4:12”

12. Delete the current Section 30-15(m)(2) and replace it with one of the following options:

Option 1: (By-right height of 22 feet for sloping roofs, no special permit relief)

(2) An accessory building with a sloping roof shall have a maximum height of 22 (twenty-two) feet. An accessory building with a flat roof shall have a maximum height of 18 (eighteen) feet.

Option 2: (Allow an increase above the limit by special permit to the lesser of 26 feet or the principle structure on the lot, with associated conditions)

(2) An accessory building with a sloping roof shall have a maximum height of 22 (twenty-two) feet. An accessory building with a flat roof shall have a maximum height of 18 (eighteen) feet.

The Board of Aldermen may grant a special permit, per the procedure in Section 30-24, to allow an accessory structure of no more than 26 (twenty-six) feet in height or the height of the principle structure on the lot, whichever is less. In granting such a special permit the Board of Aldermen shall make a finding that the proposed structure will not be out of character or scale with the neighborhood and will not negatively affect the privacy and quality of life of adjacent properties. In granting such a special permit, the Board of Aldermen may impose such conditions as necessary to protect the neighborhood from injury.